

ABSTRACT

The present invention provides a dielectric resonator device, an oscillator, and a transmitter-receiver apparatus having stable characteristics while requiring lower manufacturing costs.

A circuit substrate 1 has a top surface 1A provided with transmission lines 2, and a bottom surface 1B provided with a ground electrode 3. A dielectric substrate 5 has opposite surfaces 5A, 5B that are respectively provided with electrodes 6 having circular openings 7 so as to form a TE₀₁₀-mode resonator 4. An insulating layer 8 is disposed between the ground electrode 3 of the circuit substrate 1 and the electrodes 6 of the TE₀₁₀-mode resonator 4. The TE₀₁₀-mode resonator 4 is attached to the circuit substrate 1 with an insulative adhesive 9. Accordingly, a current path remains unchanged even if the circuit substrate 1 and the TE₀₁₀-mode resonator 4 are partially disengaged from each other, thereby achieving stable characteristics.